

REMARKS

The Office Action dated April 23, 2003 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-11 are presently pending in the above-cited application. Claims 1, 4, 5, 7 and 8 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Zornig et al.* (U.S. Patent No. 5,742,587). Claims 2, 3, 6 and 9-11 were objected to as being dependent on rejected base claims but were indicated as containing allowable subject matter. Claims 2, 6 and 9 have been placed in independent form and Applicants respectfully request allowance of claims 2, 3, 6 and 9-11. The rejection of claims 1, 4, 5, 7 and 8 is respectfully traversed according to the remarks that follow.

The present invention is directed, according to claim 1, to a method for load balancing in a link aggregation environment, with multiple links between devices being trunked together to form a single logical link. The method includes the steps of determining if a packet flow in a network switch exceeds a predetermined threshold, determining if said packet flow is a candidate for link switching from a first link to a second link, of said multiple links, when said packet flow exceeds said predetermined threshold and switching said packet flow from said first link to said second link if said packet flow is determined to be a candidate for link switching.

The present invention is directed, according to claim 5, to a method for load balancing in a link aggregation environment, with multiple links between devices being

trunked together to form a single logical link. The method includes the steps of determining a length of a first frame and a length of a second frame entering the link aggregation environment, determining a flow rate of said first frame and said second frame entering the link aggregation environment, determining if said flow rate exceeds a predetermined flow rate threshold, determining if said first frame and said second frame are candidates for link switching, and switching a transmission link for said second frame from a first transmission link to a second transmission link, of said multiple links.

The present invention is directed, according to claim 8, to a method for switching a packet flow from a first link to a second link, with the first and second links being multiple links between devices being trunked together to form a single logical link, in a network switch. The method includes the steps of determining if the packet flow is a candidate for link switching and switching the packet flow from the first link to the second link.

The sole applied prior art reference is *Zornig et al.*, where the reference is directed to a switching hub and methods to balance loads between channels of the hub. The process of load management and distribution is automated, wherein periodic reassignment of the network ports at the hub *among internal repeater channels* is performed without requiring any external intervention. The invention is highly effective in balancing the load of network structures having flows typical of client/server environments in which the preponderance of traffic flows from assignable "downstream" ports to non-assignable or fixed "upstream" ports and vice versa.

Applicants have amended the independent claims to make those claims clear that those methods provide load balancing in a link aggregation environment, with multiple links between devices being trunked together to form a single logical link. The link aggregation environment is discussed in greater detail in the present specification at page 109 and is defined under IEEE 802.3ad. This should be contrasted with the environment of *Zornig et al.*, where the switching hub, “as used herein, is a repeater having a number of ports which permit a number of network devices to be connected to a common network segment.” (column 1, lines 50-52). In *Zornig et al.*, ports are switched between repeater channels, but neither those ports nor repeater channels are trunked together to form a single logical link. As such, applicants respectfully assert that *Zornig et al.* cannot anticipate claims 1, 4, 5, 7 and 8 and the rejection of those claims should be withdrawn as being improper.

Similarly, Applicants also respectfully assert that the subject matter of claims 1, 4, 5, 7 and 8 would not be obvious in view of *Zornig et al.* While it could be argued that both the present invention and *Zornig et al.* are concerned with load balancing, they are concerned with load balancing of different traffic in different environments. One of ordinary skill in the art would not have been motivated to engage in the methods of the present invention based solely on the disclosure of *Zornig et al.* As such, Applicants respectfully assert that the subject matter of claims 1, 4, 5, 7 and 8 would not be obvious in view of *Zornig et al.*

As such, Applicants respectfully assert that claims 1, 4, 5, 7 and 8 should now be allowed and that claims 2, 3, 6 and 9-11 should be allowed based on their prior indication of containing allowable subject matter. If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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